

July 24, 2001

Mr. Matt Mabrey
Rogers Group, Inc.
R.R. #1, Box 60A
Switz City, Indiana 47465

Re: 055-14169
First Significant Revision to
FESOP 055-7414-03293

Dear Mr. Mabrey:

Cornerstone Paving, Inc. was issued a permit on September 8, 1997 for a portable batch mix hot asphalt plant. A letter requesting changes to this permit was received on March 8, 2001. Pursuant to the provisions of 326 IAC 2-8-11.1 a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of changing the company name from Cornerstone Paving, Inc. to Rogers Group, Inc. The modification also consists of allowing the burning of #4 distillate fuel oil and #4 used oil in the existing rotary aggregate dryer in addition to No. 2 distillate fuel oil and natural gas. Finally, the mailing address for the source will be changed to R.R. #1, Box 60A, Switz City, Indiana 47465.

The following conditions are applicable to the proposed project:

1. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
2. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5.
If you have any questions on this matter, please contact Trish Earls, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call at (973) 575-2555, ext. 3219 or dial (800) 451-6027, press 0 and ask for extension 3-6878.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
TE/EVP

cc: File - Greene County
U.S. EPA, Region V
Greene County Health Department
Air Compliance Section Inspector - Marc Goldman
Compliance Data Section - Jerri Curless
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michelle Boner

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR QUALITY

Rogers Group, Inc.

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the facilities listed in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR 70 and contains the conditions and provisions specified in 326 IAC 2-8 and 40 CFR 70.6 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments) and IC 13-15 and IC 13-17 (prior to July 1, 1996, IC 13-1-1-4 and IC 13-7-10).

Operation Permit No.: F055-7414-03293	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: September 8, 1997

First Administrative Amendment 055-11843-03293 Pages Amended: 4, 22	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: April 5, 2000

First Significant Permit Revision 055-14169-03293 Pages Amended: 4, 4a, 22-25a, 30	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: July 24, 2001

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a portable batch mix hot asphalt plant.

Authorized Individual:	John Torres
Initial Source Address:	County Road 475 West, Switz City, Indiana 47465
Mailing Address:	R.R. #1, Box 60A, Switz City, Indiana 47465
SIC Code:	2951
Initial County Location:	Greene County
Initial Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source, FESOP Program
	Minor Source, PSD and Emission Offset
	Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Summary

This portable source consists of the following emission units and pollution control devices:

- (a) one (1) rotary aggregate dryer and one (1) Pugmill asphalt mixer, capable of processing 240 tons per hour of raw material, equipped with one (1) 63.9 million British thermal units per hour No. 2 distillate oil fired burner using No. 4 distillate oil, No. 4 used oil, and natural gas as backup fuels;
- (b) one (1) jet pulse baghouse for asphalt dryer and mixer, exhausting at one (1) stack (ID No. SV1);
- (c) one (1) raw material conveyor;
- (d) one (1) 60" x 16' vibrating 3-deck screen; and
- (e) one (1) 15,000 gallon No.2 distillate oil tank.

A.3 Insignificant Activities

This portable source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) one (1) No. 2 distillate oil fired hot oil heater, rated at 1.0 million British thermal units per hour, exhausting at one (1) stack (ID No. SV2);
- (b) one (1) 8' x 40' bucket elevator;
- (c) two (2) 8,000 gallon liquid asphalt storage tanks;
- (d) one (1) 500 gallon diesel oil tank;
- (e) unpaved roads with public access;
- (f) six (6) cold feed bins, each with two (2) compartments, and their associated feeders;
- (g) one (1) portable hot asphalt tower, with four (4) compartments; and
- (h) four (4) aggregate storage piles with a maximum total storage capacity of 10,000 tons.

A.4 FESOP Applicability [326 IAC 2-8-2]

This portable source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permit Conditions

- (a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.
- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

SECTION D.1 FACILITY OPERATION CONDITIONS

- (a) one (1) rotary aggregate dryer and one (1) Pugmill asphalt mixer, capable of processing 240 tons per hour of raw material, equipped with one (1) 63.9 million British thermal units per hour No. 2 distillate oil fired burner using No. 4 distillate oil, No. 4 used oil, and natural gas as backup fuels;
- (b) one (1) jet pulse baghouse for asphalt dryer and mixer, exhausting at one (1) stack (ID No. SV1);
- (c) one (1) raw material conveyor; and
- (d) one (1) 60" x 16' vibrating 3-deck screen.

Emissions Limitations and Standards [326 IAC 2-8-4(1)] [326 IAC 6-1-2] [326 IAC 6-3] [326 IAC 12] [40 CFR Part 60.90]

D.1.1 Particulate Matter (PM) Emissions

Pursuant to 326 IAC 6-1-2 (Process Operations), 326 IAC 6-3 (Process Operations) and 326 IAC 12 (40 CFR Part 60.90, Subpart I), the particulate matter emissions from the aggregate drying operation shall not exceed 9.3 pounds per hour and 0.03 grain per dry standard cubic foot (gr/dscf). This limitation will also render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable.

D.1.2 Particulate Matter (PM-10) Emissions [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4, emission of particulate matter with diameter less than 10 microns (PM-10) from the aggregate mixing and drying operation shall not exceed 20.58 pounds per hour, including both filterable and condensable fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

D.1.3 Opacity

Pursuant to 326 IAC 12 (40 CFR Part 60.92, Subpart I), the mixing and drying operations shall not discharge or cause the discharge into the atmosphere any gases which exhibit 20 percent (%) opacity or greater.

D.1.4 Sulfur Dioxide (SO₂) [326 IAC 7-1.1]

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 63.9 million British thermal units per hour burner for the aggregate dryer shall be limited to:

- (a) 0.5 pounds per million British thermal units heat input or a sulfur content of less than or equal to 0.5 percent when using No. 2 or No. 4 distillate oil; and
- (b) 1.6 pounds per million British thermal units heat input or a sulfur content of less than or equal to 1.5% when using used oil.
- (c) Pursuant to 326 IAC 7-1.1-2, this sulfur dioxide limit applies at all times including periods of startup, shutdown, and malfunction.

D.1.5 Distillate Fuel Oil and Back-up Fuel Usages

- (a) the input of No. 4 used oil with a maximum sulfur content of 0.75% and No. 4 used oil equivalents to the 63.9 MMBtu per hour burner for the aggregate dryer shall be limited to 1,756,735 U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis, so that SO₂ emissions are limited below 100 tons per year.
- (b) For purposes of determining compliance, the following shall apply:

- (1) every MMCF of natural gas burned shall be equivalent to 5.4 gallons of No. 4 used oil based on SO₂ emissions, such that the total gallons of No. 4 used oil and No. 4 used oil equivalent input does not exceed the limit specified; and
 - (2) every 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to 644.0 gallons of No. 4 used oil based on SO₂ emissions and a maximum sulfur content of 0.5 percent for the No. 2 distillate fuel oil such that the total gallons of No. 4 used oil and No. 4 used oil equivalent input does not exceed the limit specified; and
 - (3) every 1,000 gallons of No. 4 distillate fuel oil burned shall be equivalent to 680.3 gallons of No. 4 used oil based on SO₂ emissions and a maximum sulfur content of 0.5 percent for the No. 4 distillate fuel oil such that the total gallons of No. 4 used oil and No. 4 used oil equivalent input does not exceed the limit specified.
- (c) This fuel usage limitation will satisfy the requirements of 326 IAC 2-8-4. Therefore, the requirements of 326 IAC 2-7 do not apply. This limitation will also satisfy the requirements of 326 IAC 2-2 and 326 IAC 2-3.

D.1.6 Volatile Organic Compounds (VOC) [326 IAC 8-5-2]

Cutback/emulsified asphalt shall not be used without prior approval from the OAQ.

Testing Requirements [326 IAC 2-8-4(3)]

D.1.7 Particulate Matter

During the period between 60 and 180 days after issuance of Significant Permit Revision No. 055-14169-03293, in order to demonstrate compliance with Conditions D.1.1 and D.1.2, the Permittee shall perform PM and PM-10 testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5, 17, 40 CFR Part 51 Appendix M, Method 201, 201a, 202, as approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10.

D.1.8 Sulfur Dioxide Emissions and Sulfur Content

The Permittee shall test for:

- (a) Sulfur content of oil burned as fuel by the 63.9 million British thermal units per hour burner for the aggregate dryer, using 40 CFR Part 60, Appendix A, Method 19 for each load of oil delivered; or
- (b) Sulfur dioxide emissions from the 63.9 million British thermal units per hour burner for the aggregate dryer, using 40 CFR Part 60, Appendix A, Method 6 each time a test to comply with Condition D.1.5 is performed.

The oil supplier certificates or tests conducted by the oil supplier may be used to replace the sulfur content tests.

Compliance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

D.1.9 Daily Visible Emission Notations

Daily visible emission notations of the conveying, transferring, screening, aggregate storage piles, unpaved roads, and the mixing and drying operation stack exhaust, shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

D.1.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the mixing and drying operation, at least once per shift when the mixing and drying process is in operation when venting to the atmosphere. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 4 and 6 inches of water or a range established during the latest stack test. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.11 Preventive Maintenance [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for this source.

D.1.12 Preventive Inspections

The following inspections shall be performed when the dryer is operating in accordance with the Preventive Maintenance Plan prepared pursuant to Condition B.13:

Daily:

- (a) Baghouse inlet temperature and air flow rate;
- (b) Adequate dust removal from hoppers;
- (c) Compressed air supply;
- (d) Proper isolation damper operation; and
- (e) Monitoring of bag cleaning cycle.

Weekly:

- (a) Bag cleaning mechanisms;
- (b) Compressed air system;
- (c) Exhaust fan drive belt tension; and
- (d) Condition of the ductwork.

Monthly:

- (a) Internal inspection for air leaks;
- (b) Bag condition; and
- (c) Fan condition and operation.

D.1.13 Bag Failure Detection

In the event that bag failure has been observed:

- (a) The asphalt mixing and aggregate drying operation will be shut down immediately until the units have been repaired.
- (b) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.

D.1.14 Fuel Oil Sampling and Analysis

Oil samples shall be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted. The Permittee shall analyze the oil sample to determine the sulfur content of the oil in accordance with 326 IAC 3-3-4. If a partially empty fuel tank is refilled, a new sample and analysis is required upon filling. Vendor analysis of the fuel oil is acceptable, in lieu of the above, if accompanied by a certification.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.1.15 Operational Parameters

The Permittee shall maintain a daily record for the baghouse controlling particulate matter emissions from asphalt mixing and aggregate drying operations of the following values:

- (a) Inlet and outlet differential static pressure;
- (b) Visible observations;
- (c) Checklist with dates and initials for each preventive action performed; and
- (d) Records of corrective actions.

D.1.16 Fuel Oil Usages

- (a) Complete and sufficient records shall be kept to establish compliance with the No.4 used oil and No. 4 used oil equivalents usage limit, as well as the sulfur dioxide emission limit established in this permit, and contain a minimum of the following:
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Monthly usage of No. 4 used oil and No. 4 used oil equivalents;
 - (3) A certification, signed by the owner or operator, that the records of the fuel oil supplier certifications represent all of the fuel combusted during the period; and
 - (4) Fuel oil supplier certifications.
- (b) The fuel oil supplier certification shall contain, as a minimum, the following:
 - (1) The name of the oil supplier; and
 - (2) A statement from the oil supplier that certifies the sulfur content and heat content of the fuel oil.

D.1.17 Quarterly Reporting

A quarterly summary to document compliance with operation condition numbers D.1.4 and D.1.5 shall be submitted, to the address listed in Section C.20 - General Reporting Requirements, using the enclosed forms or their equivalent, within thirty (30) days after the end of the quarter being reported.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Rogers Group, Inc.
Initial Source Address: County Road 475 West, Switz City, Indiana 47465
FESOP No.: F055-7414-03293
Facility: 63.9 million British thermal units burner for the aggregate dryer
Parameter: sulfur dioxide (SO₂)
Limits: The input of No. 4 used oil with a maximum sulfur content of 0.75% and No. 4 used oil equivalents to the 63.9 MMBtu per hour burner for the aggregate dryer shall be limited to 1,756,735 U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis. For purposes of determining compliance, every MMCF of natural gas burned shall be equivalent to 5.4 gallons of No. 4 used oil based on SO₂ emissions, every 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to 644.0 gallons of No. 4 used oil based on SO₂ emissions and a maximum sulfur content of 0.5 percent, and every 1,000 gallons of No. 4 distillate fuel oil burned shall be equivalent to 680.3 gallons of No. 4 used oil based on SO₂ emissions and a maximum sulfur content of 0.5 percent.

Month: _____ Year: _____

Month	Sulfur Content of Fuel Oil (%)	Heat Content of Fuel Oil (Btu/gallon)	#4 Used Oil and Equivalent Usage (mmgal/month)	Total #4 Used Oil and Equivalent Usage Last 12 Months (mmgal)

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.
Deviation has been reported on: _____

Submitted by: _____
Title/Position: _____
Signature: _____
Date: _____

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Significant Permit Revision to a Federally Enforceable State Operating Permit

Source Background and Description

Source Name:	Rogers Group, Inc.
Source Location:	County Road 475 West, Switz City, Indiana 47465
County:	Greene
SIC Code:	2951
Operation Permit No.:	055-7414-03293
Operation Permit Issuance Date:	September 8, 1997
Permit Revision No.:	055-14169-03293
Permit Reviewer:	Trish Earls/EVP

The Office of Air Quality (OAQ) has reviewed a revision application from Rogers Group, Inc. relating to the operation of a portable batch mix hot asphalt plant.

History

On March 8, 2001, Rogers Group, Inc. submitted an application to the OAQ requesting approval to burn #4 distillate fuel oil in the existing rotary aggregate dryer. A request was also included to change the company name from Cornerstone Paving, Inc. to Rogers Group, Inc. and to change the mailing address to R.R. #1, Box 60A, Switz City, Indiana 47465. Cornerstone Paving, Inc. was issued a FESOP on September 8, 1997.

Existing Approvals

The source was issued a FESOP (F055-7414-03293) on September 8, 1997. The source has since received the following:

- (a) First Administrative Amendment No.: 055-11843, issued on April 5, 2000.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Significant Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on March 8, 2001.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (4 pages).

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

Pollutant	Potential To Emit (tons/year)
PM	13.89
PM-10	7.64
SO ₂	148.87
VOC	1.54
CO	23.51
NO _x	39.70

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

Hazardous Air Pollutant (HAP)	PTE (tons/year)
Arsenic	0.001
Beryllium	0.001
Cadmium	0.003
Chromium	0.019
Lead	0.003
Manganese	0.004
Mercury	0.001
Nickel	0.048
TOTAL HAPs	0.08

Note: The above emissions represent the revised potential to emit from combustion only in the rotary aggregate dryer which can now burn #4 distillate fuel oil.

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of SO₂ and NO_x are equal to or greater than 25 tons per year. Also, this modification requires an adjustment of the existing SO₂ emissions cap limitation. Therefore, the FESOP is being revised through a Significant Permit Revision pursuant to 326 IAC 2-8-11.1.

Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Hot Oil Heater**	0.06	0.03	2.16	0.01	0.16	0.62	0.00
Aggregate Drying	40.89	90.16	96.84	13.78	23.51	27.99	12.24
Conveying/Handling **	2.51	1.19	0.00	0.00	0.00	0.00	0.00
Unpaved Roads **	21.25	7.44	0.00	0.00	0.00	0.00	0.00
Storage **	0.50	0.18	0.00	0.00	0.00	0.00	0.00
Total Emissions	65.21	99.0	99.0	13.79	23.67	28.61	12.24

Note: (1) Allowable PM emissions from aggregate drying represent the maximum allowable emissions pursuant to 326 IAC 6-1-2. Allowable PM10 emissions represent the maximum allowable emissions in order to comply with 326 IAC 2-8 (FESOP).

** These are insignificant activities.

County Attainment Status

The source is located in Greene County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Greene County has been designated as attainment or unclassifiable for ozone.

Portable Source

- (a) Initial Location
This is a portable source and its initial location is County Road 475 West, Switz City, Indiana 47465.
- (b) PSD and Emission Offset Requirements
The emissions from this portable source were reviewed under the requirements of the Prevention of Significant Deterioration (PSD), 326 IAC 2-2, 40 CFR 52.21, and Emission Offset, 326 IAC 2-3.

Federal Rule Applicability

- (a) This source is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.90, Subpart I) because it meets the definition of a hot mix asphalt facility pursuant to the rule and it was constructed after June 11, 1973. This rule limits particulate matter emissions to 0.04 grains per dry standard cubic foot (gr/dscf) and also limits visible emissions to 20% opacity. This is equivalent to a particulate matter emission rate of 12.45 pounds per hour. The source will comply with this rule by using a baghouse to limit particulate matter emissions to less than 0.04 gr/dscf (see Appendix A, page 4 of 4, for detailed calculations).
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 because it is a portable source and can be located in any of the counties listed in 326 IAC 2-6-1(a). The potential to emit any criteria pollutant, including federally enforceable limits, is less than 100 tons per year. However, this source still has the potential to emit VOC and NO_x into the air at levels greater than ten (10) tons per year, therefore, the source is subject to this rule. Pursuant to this rule, the owner/operator of this facility must annually submit an emission statement of the facility. The annual statement must be received by April 15 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4.

326 IAC 2-8-4 (FESOP)

This source is subject to 326 IAC 2-8-4 (FESOP). Pursuant to this rule, the usage of No. 4 distillate fuel oil with a sulfur content of 0.5% and No. 4 fuel oil equivalents in the 63.9 MMBtu per hour burner for the aggregate dryer shall be limited to 2,582,400 U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis, so that SO₂ emissions are limited below 100 tons per year. Also, PM-10 emissions from the aggregate dryer shall be limited to 20.58 pounds per hour. The source will comply with the PM-10 emission limit by utilizing a baghouse for controlling PM-10 emissions to less than 20.58 pounds per hour from the aggregate dryer. Therefore, the requirements of 326 IAC 2-7 do not apply. (Note that since No. 4 fuel oil is the worst case fuel for SO₂ emissions, the fuel usage limit will be changed from a usage limit on No. 2 fuel oil to a usage limit on No. 4 fuel oil.)

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

Since the applicant requests that the source be permitted to be located in any county in the state, the most stringent opacity limitation applies.

326 IAC 6-4 (Fugitive Dust Emissions)

This source is subject to 326 IAC 6-4 for fugitive dust emissions. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), fugitive dust shall not be visible crossing the boundary or property line of a source. Observances of visible emissions crossing property lines may be refuted by factual data expressed in 326 IAC 6-4-2(1), (2) or (3).

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

This source is subject to 326 IAC 6-5 for fugitive particulate matter emissions. Pursuant to 326 IAC 6-5, a fugitive dust control plan must be submitted, reviewed and approved. The fugitive dust control plan for this source includes watering the following fugitive emission activities on an as needed basis:

- (a) Vehicular traffic on unpaved roads, paved roads and parking lots;
- (b) Aggregate stockpile operations; and
- (c) Outdoor aggregate conveying and handling.

State Rule Applicability - Individual Facilities

326 IAC 6-1-2 (Particulate Emissions Limitations)

The particulate matter emissions from the aggregate mixing and drying operation are subject to the requirements of 326 IAC 6-1-2 (Particulate Emissions Limitations). The rule requires that the particulate matter emissions be limited to 0.03 gr/dscf. This is equivalent to a particulate matter emission rate of 9.33 pounds per hour. The baghouse shall be in operation at all times the aggregate dryer is in operation, in order to comply with this limit.

326 IAC 6-3-2 (Process Operations)

The aggregate mixing and drying operation is not subject to the requirements of 326 IAC 6-3-2. This rule does not apply if the limitation established in the rule is not consistent with applicable limitations in 326 IAC 6-1 or 326 IAC 12. Since the applicable PM limits established by 326 IAC 6-1-2 and 326 IAC 12, 40 CFR 60, Subpart I, are less than the PM limits that would be established by 326 IAC 6-3-2, the more stringent limits apply and the limits pursuant to 326 IAC 6-3-2 do not apply.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

The sulfur dioxide emissions from the 63.9 MMBtu/hr dryer burning distillate oil shall be limited to 0.5 lb/MMBtu heat input. This equates to a distillate fuel oil sulfur content limit of 0.5% (see Appendix A, page 4 of 4 for detailed calculations). The source will comply with this rule by using No. 2 and No. 4 distillate fuel oils with a sulfur content of 0.5% or less in the dryer burner.

326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements)

This source is subject to 326 IAC 7-2-1 (Reporting Requirements). This rule requires the source to submit to the Office of Air Quality upon request records of sulfur content, heat content, fuel consumption, and sulfur dioxide emission rates based on a calendar-month average.

326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving)

The source is not subject to the requirements of 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving), because the source is not planning to produce any cutback or emulsified asphalt.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

1. The mixing and drying operation, conveying, material handling, unpaved roads and storage piles have applicable compliance monitoring conditions as specified below:
 - (a) Visible emissions notations of the conveying, material handling, unpaved roads, storage piles, and aggregate dryer baghouse stack exhaust shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.
 - (b) The Permittee shall record the total static pressure drop across the baghouse controlling the aggregate dryer, at least once daily when the aggregate dryer is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 4.0 to 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

These monitoring conditions are necessary because the baghouse for the aggregate dryer must operate properly to ensure compliance with 40 CFR Part 60.90 (Subpart I- Standards of Performance for Hot Mix Asphalt Facilities), 326 IAC 6-1-2 (Particulate Emissions Limitations), and 326 IAC 2-8 (FESOP).

Changes Proposed

The changes listed below have been made to the Federally Enforceable State Operating Permit (F055-7414-03293). It should be noted that as of January 1, 2001, the Office of Air Management is now being referred to as the Office of Air Quality. Therefore, all references to the Office of Air Management have been revised to refer to the Office of Air Quality.

1. Section A.1 has been revised to reflect the company name change from Cornerstone Paving, Inc. to Rogers Group, Inc. and to change the mailing address. Section A.1 is revised to read as follows:

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a portable batch mix hot asphalt plant.

~~Responsible Official~~ **Authorized Individual:** Jack Goss
Initial Source Address: County Road 475 West, Switz City, Indiana 47465
Mailing Address: ~~R. R. #4 Box 545, Bloomfield, Indiana 47424~~ **R.R. #1, Box 60A, Switz City, Indiana 47465**
SIC Code: 2951
Initial County Location: Greene County
~~Initial County Status:~~
Initial Source Location Status: Attainment for all criteria pollutants
Source Status: Minor Source, FESOP Program
Minor Source, PSD and Emission Offset
Minor Source, Section 112 of the Clean Air Act

2. The equipment description for the aggregate dryer in section A.2 is revised to include No. 4 fuel oil as another back-up fuel as follows:

A.2 Emission Units and Pollution Control Summary

This portable source consists of the following emission units and pollution control devices:

- (a) one (1) rotary aggregate dryer and one (1) Pugmill asphalt mixer, capable of processing 240 tons per hour of raw material, equipped with one (1) 63.9 million British thermal units per hour No. 2 distillate oil fired burner using **No. 4 distillate oil and** natural gas as backup fuels;
- (b) one (1) jet pulse baghouse for asphalt dryer and mixer, exhausting at one (1) stack (ID No. SV1);
- (c) one (1) raw material conveyor;
- (d) one (1) 60" x 16' vibrating 3-deck screen; and
- (e) one (1) 15,000 gallon No.2 distillate oil tank.

The equipment description in section D.1 is revised in the same way.

3. Condition A.5 has been revised as follows:

A.5 Prior Permit Conditions Superseded [326 IAC 2]

~~This permit supersedes the conditions of all construction and operating permits issued under 326 IAC 2 prior to the effective date of this permit.~~

- (a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.**
- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.**

4. Condition D.1.2 is revised to include the correct PM10 emission limit to comply with 326 IAC 2-8 (FESOP). The original limit was incorrectly converted from tons per year to pounds per hour. It should also be noted that the revised limit does not take into account controls on the fugitive particulate matter emissions from conveying/handling, unpaved roadways, and storage piles since controls on these operations are not required in the FESOP and are not federally enforceable. Condition D.1.2 now reads as follows:

D.1.2 Particulate Matter (PM-10) Emissions [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4, emission of particulate matter with diameter less than 10 microns (PM-10) from the aggregate mixing and drying operation shall not exceed ~~49.6~~ **20.58** pounds per hour, including both filterable and condensable fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

5. Condition D.1.4 has been revised to include No. 4 distillate fuel oil in the sulfur dioxide emission limit as follows:

D.1.4 Sulfur Dioxide (SO₂) [326 IAC 7-1.1]

- (a)** Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 63.9 million British thermal units per hour burner for the aggregate dryer shall be limited to 0.5 pounds per million British thermal units heat input or a sulfur content of less than or equal to 0.5 percent when using No. 2 **or No. 4** distillate oil.
- (b)** Pursuant to 326 IAC 7-1.1-2, this sulfur dioxide limit applies at all times including periods of startup, shutdown, and malfunction.

6. Condition D.1.5 has been revised such that the fuel oil usage limit is expressed in terms of No. 4 distillate fuel oil and No. 4 distillate fuel oil equivalents since No. 4 distillate fuel oil is now the worst case fuel for SO₂ emissions. The condition is revised as follows:

D.1.5 Distillate Fuel Oil and Back-up Fuel Usages

~~The input of No. 2 distillate fuel oil to the 63.9 million British thermal units per hour burner for the aggregate dryer shall be limited as follows:~~

- ~~(a) Total input shall not exceed 2.596 million gallons per twelve (12) consecutive months, based on the sulfur content of 0.5% in the No. 2 fuel oil, and the total for each month shall not exceed the difference between the annual usage limit minus the sum of actual usage from the previous eleven (11) months.~~

-
- ~~(b) During the first twelve (12) months of operation under this permit, the input of No. 2 distillate fuel oil shall be limited such that the total input divided by the accumulated months of operation shall not exceed 0.216 million gallons per month.~~
- (a) The input of No. 4 distillate fuel oil with a maximum sulfur content of 0.5% and No. 4 distillate fuel oil equivalents to the 63.9 MMBtu per hour burner for the aggregate dryer shall be limited to 2,582,400 U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis, so that SO₂ emissions are limited below 100 tons per year.
- (b) For purposes of determining compliance, the following shall apply:
- (1) every MMCF of natural gas burned shall be equivalent to 8.0 gallons of No. 4 distillate fuel oil based on SO₂ emissions, such that the total gallons of No. 4 distillate fuel oil and No. 4 distillate fuel oil equivalent input does not exceed the limit specified; and
- (2) every 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to 946.7 gallons of No. 4 distillate fuel oil based on SO₂ emissions and a maximum sulfur content of 0.5 percent such that the total gallons of No. 4 distillate fuel oil and No. 4 distillate fuel oil equivalent input does not exceed the limit specified.
- (c) This fuel usage limitation will satisfy the requirements of 326 IAC 2-8-4. Therefore, the requirements of 326 IAC 2-7 do not apply. This limitation will also satisfy the requirements of 326 IAC 2-2 and 326 IAC 2-3.
7. A new condition, numbered D.1.6, has been added to the FESOP stating that cutback asphalt shall not be used at this source without prior approval from the OAQ. All subsequent conditions of section D.1 have been re-numbered accordingly. The condition now reads as follows:

D.1.6 Volatile Organic Compounds (VOC) [326 IAC 8-5-2]

Cutback/emulsified asphalt shall not be used without prior approval from the OAQ.

8. The required frequency of compliance monitoring for all non-woodworking operations is once per shift in order to demonstrate continuous compliance unless specified otherwise by an applicable rule. Therefore, condition D.1.9, now re-numbered D.1.10, has been revised to require parametric monitoring once per shift instead of once per day as follows:

D.1.910 Pressure Drop Readings Parametric Monitoring

The Permittee shall ~~take pressure drop readings~~ **record the total static pressure drop** across the baghouse ~~controlling used in conjunction with~~ the mixing and drying operation, at least once ~~a day per shift~~ **per shift** when the mixing and drying process is in operation **when venting to the atmosphere**. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 4 and 6 inches of water **or a range established during the latest stack test**. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading ~~or flow rate~~ is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with ~~condition C.13~~ **Section C - Pressure Gauge Specifications, of this permit, shall** be subject to approval by IDEM, OAMQ, and shall be calibrated at least once every six (6) months.

The record keeping requirements in condition D.1.14, now re-numbered D.1.15, have also been revised consistent with the above change as follows:

D.1.145 Operational Parameters

The Permittee shall maintain a ~~daily~~ **once per shift** record for the baghouse controlling particulate matter emissions from asphalt mixing and aggregate drying operations of the following values:

- (a) Inlet and outlet differential static pressure;
 - (b) Visible observations;
 - (c) Checklist with dates and initials for each preventive action performed; and
 - (d) Records of corrective actions.
9. Since the fuel oil usage limit for the aggregate dryer is now being expressed as a No. 4 fuel oil and No. 4 fuel oil equivalents usage limit, condition D.1.15, now re-numbered D.1.16, has been revised to reflect this. The revised condition now reads as follows:

D.1.156 Distillate Fuel Oil Usages

- (a) Complete and sufficient records shall be kept to establish compliance with the No. ~~24~~ **fuel oil and No. 4 fuel oil equivalents** usage limit, as well as the sulfur dioxide emission limit established in this permit, and contain a minimum of the following:
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Monthly usage of No. ~~24~~ **distillate oil and No. 4 distillate fuel oil equivalents**;
 - (3) A certification, signed by the owner or operator, that the records of the fuel oil supplier certifications represent all of the fuel combusted during the period; and
 - (4) Fuel oil supplier certifications.
 - (b) The fuel oil supplier certification shall contain, as a minimum, the following:
 - (1) The name of the oil supplier; and
 - (2) A statement from the oil supplier that certifies the sulfur content and heat content of the fuel oil.
10. The quarterly report form for the fuel oil usage limit has been revised to reflect the new fuel oil usage limit. The revised form is shown on the following page.

Conclusion

The operation of this modification to a portable batch mix hot asphalt plant shall be subject to the conditions of the attached proposed **Significant Permit Revision to a Federally Enforceable State Operating Permit No. 055-14169-03293**.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: ~~Cornerstone Paving, Inc.~~ **Rogers Group, Inc.**
Initial Source Address: County Road 475 West, Switz City, Indiana 47465
FESOP No.: F055-7414-03293
Facility: 63.9 million British thermal units burner for the aggregate dryer
Parameter: sulfur dioxide (SO₂)
Limits:

(a) ~~Total input shall not exceed 2.596 million gallons per twelve (12) consecutive months, based on the sulfur content of 0.5% in the No. 2 fuel oil, and the total for each month shall not exceed the difference between the annual usage limit minus the sum of actual usage from the previous eleven (11) months.~~

(b) ~~During the first twelve (12) months of operation under this permit, the input of No. 2 distillate fuel oil shall be limited such that the total input divided by the accumulated months of operation shall not exceed 0.216 million gallons per month.~~

The input of No. 4 distillate fuel oil with a maximum sulfur content of 0.5% and No. 4 distillate fuel oil equivalents to the 63.9 MMBtu per hour burner for the aggregate dryer shall be limited to 2,582,400 U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis. For purposes of determining compliance, every MMCF of natural gas burned shall be equivalent to 8.0 gallons of No. 4 distillate fuel oil based on SO₂ emissions, and every 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to 946.7 gallons of No. 4 distillate fuel oil based on SO₂ emissions and a maximum sulfur content of 0.5 percent.

Month: _____ Year: _____

Month	Sulfur Content of #2 Fuel Oil (%)	Heat Content of #2 Fuel Oil (Btu/gallon)	#24 Fuel Oil and Equivalent Usage (mmgal/month)	Total #24 Fuel Oil and Equivalent Usage Last 12 Months (mmgal)

(continued on next page)

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.

Deviation has been reported on: _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Permit Revision to a Federally Enforceable State Operating Permit

Source Name:	Rogers Group, Inc.
Source Location:	County Road 475 West, Switz City, Indiana 47465
County:	Greene
SIC Code:	2951
Operation Permit No.:	F 055-7414-03293
Operation Permit Issuance Date:	September 8, 1997
Permit Revision No.:	055-14169-03293
Permit Reviewer:	Trish Earls/EVP

On May 22, 2001, the Office of Air Quality (OAQ), had a notice published in the Linton Daily Citizen, Linton, Indiana, stating that Rogers Group, Inc. had applied for a Significant Permit Revision to a Federally Enforceable State Operating Permit (FESOP) to request approval to burn #4 distillate fuel oil in the existing rotary aggregate dryer and the change the company name from Cornerstone Paving, Inc. to Rogers Group, Inc. The notice also stated that the OAQ proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On June 8, 2001, Matt Mabrey of Rogers Group, Inc. submitted comments on the proposed permit. The summary of the comments and corresponding responses is as follows:

Comment #1

Section A.1 - General Information

Please revise the authorized individual to read "John Torres".

Response #1

Section A.1 of the FESOP is revised to include the correct authorized individual. Section A.1 now reads as follows:

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a portable batch mix hot asphalt plant.

Authorized Individual:	Jack Goss John Torres
Initial Source Address:	County Road 475 West, Switz City, Indiana 47465
Mailing Address:	R.R. #1, Box 60A, Switz City, Indiana 47465
SIC Code:	2951
Initial County Location:	Greene County
Initial Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source, FESOP Program
	Minor Source, PSD and Emission Offset
	Minor Source, Section 112 of the Clean Air Act

Comment #2

In the permit application, it was our intention to request approval to burn #4 grade used oil as well as #4 grade distillate oil. The application request should include a request for approval to burn #4 used oil.

Response #2

The equipment description in section A.2 of the FESOP for the aggregate dryer is revised to read as follows:

A.2 Emission Units and Pollution Control Summary

This portable source consists of the following emission units and pollution control devices:

- (a) one (1) rotary aggregate dryer and one (1) Pugmill asphalt mixer, capable of processing 240 tons per hour of raw material, equipped with one (1) 63.9 million British thermal units per hour No. 2 distillate oil fired burner using No. 4 distillate oil, **No. 4 used oil**, and natural gas as backup fuels;

The same equipment description change has been made in section D.1

The emission calculations in Appendix A have been revised to reflect aggregate dryer burner emissions when burning No. 4 grade used oil. The used oil now represents the worst case fuel for SO₂ emissions. Therefore, the fuel usage limitation in condition D.1.5 for the aggregate dryer burner to limit SO₂ emissions below 100 tons per year is now expressed as a used oil limitation. Also, the sulfur content limit for used oil pursuant to 326 IAC 7-1.1 has been included in condition D.1.4. Conditions D.1.4 and D.1.5 are revised to read as follows:

D.1.4 Sulfur Dioxide (SO₂) [326 IAC 7-1.1]

- ~~(a)~~ Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 63.9 million British thermal units per hour burner for the aggregate dryer shall be limited to:
 - (a) 0.5 pounds per million British thermal units heat input or a sulfur content of less than or equal to 0.5 percent when using No. 2 or No. 4 distillate oil; **and**
 - (b) **1.6 pounds per million British thermal units heat input or a sulfur content of less than or equal to 1.5% when using used oil.**
- ~~(b)~~(c) Pursuant to 326 IAC 7-1.1-2, this sulfur dioxide limit applies at all times including periods of startup, shutdown, and malfunction.

D.1.5 Distillate Fuel Oil and Back-up Fuel Usages

- (a) the input of No. 4 ~~distillate fuel~~ **used** oil with a maximum sulfur content of ~~0.5%~~ **0.75%** and No. 4 ~~distillate fuel~~ **used** oil equivalents to the 63.9 MMBtu per hour burner for the aggregate dryer shall be limited to ~~2,582,400~~ **1,756,735** U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis, so that SO₂ emissions are limited below 100 tons per year.
- (b) For purposes of determining compliance, the following shall apply:
 - (1) every MMCF of natural gas burned shall be equivalent to ~~8.0~~ **5.4** gallons of No. 4 ~~distillate fuel~~ **used** oil based on SO₂ emissions, such that the total gallons of No. 4 ~~distillate fuel~~ **used** oil and No. 4 ~~distillate fuel~~ **used** oil equivalent input does not exceed the limit specified; and

- (2) every 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to ~~946.7~~ **644.0** gallons of No. 4 ~~distillate fuel~~ **used** oil based on SO₂ emissions and a maximum sulfur content of 0.5 percent **for the No. 2 distillate fuel oil** such that the total gallons of No. 4 ~~distillate fuel~~ **used** oil and No. 4 ~~distillate fuel~~ **used** oil equivalent input does not exceed the limit specified; **and**
- (3) **every 1,000 gallons of No. 4 distillate fuel oil burned shall be equivalent to 680.3 gallons of No. 4 used oil based on SO₂ emissions and a maximum sulfur content of 0.5 percent for the No. 4 distillate fuel oil such that the total gallons of No. 4 used oil and No. 4 used oil equivalent input does not exceed the limit specified.**
- (c) This fuel usage limitation will satisfy the requirements of 326 IAC 2-8-4. Therefore, the requirements of 326 IAC 2-7 do not apply. This limitation will also satisfy the requirements of 326 IAC 2-2 and 326 IAC 2-3.

The testing requirement condition D.1.7 has been revised to require testing of the aggregate drying operation between 60 and 180 days after issuance of this Significant Permit Revision to demonstrate compliance with the requirements of the New Source Performance Standard (NSPS), 40 CFR 60.90, Subpart I and the PM₁₀ emission limit in condition D.1.2. The condition now reads as follows:

D.1.7 Particulate Matter

During the period between ~~36 and 42 months~~ **60 and 180 days** after issuance of ~~this permit~~ **Significant Permit Revision No. 055-14169-03293, in order to demonstrate compliance with Conditions D.1.1 and D.1.2,** the Permittee shall perform PM and PM-10 testing utilizing methods per 40 CFR Part 60 Appendix A, Method 5, 17, 40 CFR Part 51 Appendix M, Method 201, 201a, 202, as approved by the Commissioner. This test shall be repeated at least once every five years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10.

Condition D.1.16 has been revised to reflect the revised fuel usage limitation as follows:

D.1.16 ~~Distillate~~ Fuel Oil Usages

-
- (a) Complete and sufficient records shall be kept to establish compliance with the No.4 ~~fuel~~ **used** oil and No. 4 ~~fuel~~ **used** oil equivalents usage limit, as well as the sulfur dioxide emission limit established in this permit, and contain a minimum of the following:
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Monthly usage of No. 4 ~~distillate~~ **used** oil and No. 4 ~~distillate fuel~~ **used** oil equivalents;
 - (3) A certification, signed by the owner or operator, that the records of the fuel oil supplier certifications represent all of the fuel combusted during the period; and
 - (4) Fuel oil supplier certifications.
 - (b) The fuel oil supplier certification shall contain, as a minimum, the following:
 - (1) The name of the oil supplier; and
 - (2) A statement from the oil supplier that certifies the sulfur content and heat content of the fuel oil.

The quarterly report form for the fuel usage limitation has also been revised to reflect the revised limitation. The revised form is shown on the following page.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Rogers Group, Inc.
Initial Source Address: County Road 475 West, Switz City, Indiana 47465
FESOP No.: F055-7414-03293
Facility: 63.9 million British thermal units burner for the aggregate dryer
Parameter: sulfur dioxide (SO₂)
Limits: The input of No. 4 ~~distillate fuel~~ **used** oil with a maximum sulfur content of ~~0.5%~~ **0.75%** and No. 4 ~~distillate fuel~~ **used** oil equivalents to the 63.9 MMBtu per hour burner for the aggregate dryer shall be limited to ~~2,582,400~~ **1,756,735** U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis. For purposes of determining compliance, every MMCF of natural gas burned shall be equivalent to ~~8.0~~ **5.4** gallons of No. 4 ~~distillate fuel~~ **used** oil based on SO₂ emissions, and every 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to ~~946.7~~ **644.0** gallons of No. 4 ~~distillate fuel~~ **used** oil based on SO₂ emissions and a maximum sulfur content of 0.5 percent, **and every 1,000 gallons of No. 4 distillate fuel oil burned shall be equivalent to 680.3 gallons of No. 4 used oil based on SO₂ emissions and a maximum sulfur content of 0.5 percent.**

Month: _____ Year: _____

Month	Sulfur Content of Fuel Oil (%)	Heat Content of Fuel Oil (Btu/gallon)	#4 Fuel Used Oil and Equivalent Usage (mmgal/month)	Total #4 Fuel Used Oil and Equivalent Usage Last 12 Months (mmgal)

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.
Deviation has been reported on: _____

Submitted by: _____
Title/Position: _____
Signature: _____
Date: _____

The OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision. The State Rule Applicability section of the TSD has been revised to so that the fuel usage limitation to comply with 326 IAC 2-8 (FESOP) is changed to a No. 4 used oil and equivalent limitation and the sulfur content limit for No. 4 used oil pursuant to 326 IAC 7-1.1 is added as follows:

326 IAC 2-8-4 (FESOP)

This source is subject to 326 IAC 2-8-4 (FESOP). Pursuant to this rule, the usage of No. 4 ~~distillate fuel~~ **used** oil with a sulfur content of ~~0.5%~~ **0.75%** and No. 4 ~~fuel~~ **used** oil equivalents in the 63.9 MMBtu per hour burner for the aggregate dryer shall be limited to ~~2,582,400~~ **1,756,735** U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis, so that SO₂ emissions are limited below 100 tons per year. Also, PM-10 emissions from the aggregate dryer shall be limited to 20.58 pounds per hour. The source will comply with the PM-10 emission limit by utilizing a baghouse for controlling PM-10 emissions to less than 20.58 pounds per hour from the aggregate dryer. Therefore, the requirements of 326 IAC 2-7 do not apply. (Note that since No. 4 ~~fuel~~ **used** oil is the worst case fuel for SO₂ emissions, the fuel usage limit will be changed from a usage limit on No. 2 fuel oil to a usage limit on No. 4 ~~fuel~~ **used** oil.)

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

- (a) The sulfur dioxide emissions from the 63.9 MMBtu/hr dryer burning distillate oil shall be limited to 0.5 lb/MMBtu heat input. This equates to a distillate fuel oil sulfur content limit of 0.5% (see Appendix A, page 4 of 4 for detailed calculations). The source will comply with this rule by using No. 2 and No. 4 distillate fuel oils with a sulfur content of 0.5% or less in the dryer burner.
- (b) **The sulfur dioxide emissions from the 63.9 MMBtu/hr dryer burning waste (used) oil shall be limited to 1.6 lb/MMBtu heat input. This equates to a waste (used) oil sulfur content limit of 1.5% (see Appendix A, page 4 of 4 for detailed calculations). The source will comply with this rule by using No. 4 used oil with a sulfur content of 0.75% or less in the dryer burner.**

Company Name: Rogers Group, Inc.
 Initial Plant Location: County Road 475 West, Switz City, Indiana 47465
 County: Greene
 Date Received: March 23, 2001
 Permit Reviewer: Trish Earls

**** aggregate dryer burner****

The following calculations determine the amount of emissions created by natural gas combustion, from the aggregate dryer burner, based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1 and 1.4-2.

Criteria Pollutant:	63.9 MMBtu/hr * 8,760 hr/yr 1000 Btu/cf * 2,000 lb/ton	* Ef (lb/MMcf) = (ton/yr)
*P M:	1.9 lb/MMcf =	0.53 ton/yr
*P M-10:	7.6 lb/MMcf =	2.13 ton/yr
S O 2:	0.6 lb/MMcf =	0.17 ton/yr
N O x:	100.0 lb/MMcf =	27.99 ton/yr
V O C:	5.5 lb/MMcf =	1.54 ton/yr
C O:	84.0 lb/MMcf =	23.51 ton/yr

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

The following calculations determine the amount of emissions created by the combustion of #2 distillate fuel oil @ 0.50 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-3, and 1.3-7.

Criteria Pollutant:	63.9 MMBtu/hr * 8,760 hr/yr 141,000 Btu/gal * 2,000 lb/ton	* Ef (lb/1,000 gal) = (ton/yr)
P M:	2.0 lb/1000 gal =	3.97 ton/yr
P M-10:	1.1 lb/1000 gal =	2.14 ton/yr
S O 2:	71.0 lb/1000 gal =	140.93 ton/yr
N O x:	20.0 lb/1000 gal =	39.70 ton/yr
V O C:	0.20 lb/1000 gal =	0.40 ton/yr
C O:	5.0 lb/1000 gal =	9.92 ton/yr

The following calculations determine the amount of emissions created by the combustion of #4 distillate fuel oil @ 0.50 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-3, and 1.3-7.

Criteria Pollutant:	63.9 MMBtu/hr * 8,760 hr/yr 141,000 Btu/gal * 2,000 lb/ton	* Ef (lb/1,000 gal) = (ton/yr)
P M:	7.0 lb/1000 gal =	13.89 ton/yr
P M-10:	3.9 lb/1000 gal =	7.64 ton/yr
S O 2:	75.0 lb/1000 gal =	148.87 ton/yr
N O x:	20.0 lb/1000 gal =	39.70 ton/yr
V O C:	0.34 lb/1000 gal =	0.67 ton/yr
C O:	5.0 lb/1000 gal =	9.92 ton/yr

The following calculations determine the amount of emissions created by the combustion of #4 grade used oil @ 0.75 % sulfur, 0.500 % ash, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.11 - Waste Oil Combustion, Tables 1.11-1, 1.11-2, and 1.11-3.

Criteria Pollutant:	63.9 MMBtu/hr * 8760 hr/yr 139,000 Btu/gal * 2000 lb/ton	* Ef (lb/1000 gal) = (ton/yr)
P M:	32.0 lb/1000 gal =	64.43 ton/yr
P M-10:	25.5 lb/1000 gal =	51.35 ton/yr
S O 2:	110.3 lb/1000 gal =	221.99 ton/yr
N O x:	19.0 lb/1000 gal =	38.26 ton/yr
V O C:	1.0 lb/1000 gal =	2.01 ton/yr
C O:	5.0 lb/1000 gal =	10.07 ton/yr

The maximum potential emissions from the aggregate dryer burner due to fuel combustion are the following:

Criteria Pollutant:		Worst Case Fuel
P M:	64.43 ton/yr	No. 4 Used Oil
P M-10:	51.35 ton/yr	No. 4 Used Oil
S O 2:	221.99 ton/yr	No. 4 Used Oil
N O x:	39.70 ton/yr	No. 2/No. 4 Distillate Oil
V O C:	2.01 ton/yr	No. 4 Used Oil
C O:	23.51 ton/yr	Natural Gas

**** source emissions after controls ****

In order to qualify for the FESOP program, this facility must limit PM-10 and SO₂ emissions to 99.0 tons per year. Consequently, SO₂ emissions from the aggregate dryer must be limited to 96.84 tons per year (99.0 ton/yr - 2.16 tons/yr from the other combustion sources).

* Emissions of PM and PM-10 from aggregate drying operations are controlled with a 99.90 % control efficiency. Control efficiency represents the combined overall control efficiency of the cyclone and baghouse.

The following calculations determine the amount of emissions created by natural gas combustion based on a fuel usage limitation of 559,764,000 cf

Natural Gas: $\frac{559,764 \text{ MMcf/yr}}{2,000 \text{ lb/ton}}$ * Ef (lb/MMcf) = (ton/yr)

P M:	1.9 lb/MMcf =	5.32E-04 ton/yr *
P M-10:	7.6 lb/MMcf =	2.13E-03 ton/yr *
S O 2:	0.6 lb/MMcf =	0.17 ton/yr
N O x:	100.0 lb/MMcf =	27.99 ton/yr
V O C:	5.5 lb/MMcf =	1.54 ton/yr
C O:	84.0 lb/MMcf =	23.51 ton/yr

The following calculations determine the amount of emissions created by No.2 distillate fuel oil @ 0.50 % sulfur based on a fuel usage limitation of 2,727,887 gal/yr:

No. 2 Distillate Oil: $\frac{2,727,887 \text{ gal/yr}}{2,000 \text{ lb/ton}}$ * Ef (lb/1,000 gal) = (ton/yr)

P M:	2.0 lb/1000 gal =	2.73E-03 ton/yr *
P M-10:	1.1 lb/1000 gal =	1.47E-03 ton/yr *
S O 2:	71.0 lb/1000 gal =	96.84 ton/yr
N O x:	20.0 lb/1000 gal =	27.28 ton/yr
V O C:	0.20 lb/1000 gal =	0.27 ton/yr
C O:	5.0 lb/1000 gal =	6.82 ton/yr

The following calculations determine the amount of emissions created by No. 4 distillate fuel oil @ 0.50 % sulfur based on a fuel usage limitation of 2,582,400 gal/yr:

No. 4 Distillate $\frac{2,582,400 \text{ gal/yr}}{2000 \text{ lb/ton}}$ * Ef (lb/1000 gal) = (ton/yr)

P M:	7.0 lb/1000 gal =	9.04E-03 ton/yr *
P M-10:	3.9 lb/1000 gal =	4.97E-03 ton/yr *
S O 2:	75.0 lb/1000 gal =	96.84 ton/yr
N O x:	20.0 lb/1000 gal =	25.82 ton/yr
V O C:	0.34 lb/1000 gal =	0.44 ton/yr
C O:	5.0 lb/1000 gal =	6.46 ton/yr

The following calculations determine the amount of emissions created by No. 4 used oil @ 0.75 % sulfur based on a fuel usage limitation of 1,756,735 gal/yr:

No. 4 Used Oi $\frac{1,756,735 \text{ gal/yr}}{2000 \text{ lb/ton}}$ * Ef (lb/1000 gal) = (ton/yr)

P M:	32.0 lb/1000 gal =	2.81E-02 ton/yr *
P M-10:	25.5 lb/1000 gal =	2.24E-02 ton/yr *
S O 2:	110.3 lb/1000 gal =	96.84 ton/yr
N O x:	19.0 lb/1000 gal =	16.69 ton/yr
V O C:	1.0 lb/1000 gal =	0.88 ton/yr
C O:	5.0 lb/1000 gal =	4.39 ton/yr

Criteria Pollutant:

P M:	2.81E-02 ton/yr *
P M-10:	2.24E-02 ton/yr *
S O 2:	96.84 ton/yr
N O x:	27.99 ton/yr
V O C:	1.54 ton/yr
C O:	23.51 ton/yr

Worst Case Fuel
No. 4 Used Oil
No. 4 Used Oil
No. 2/No. 4 Distillate Oil/No. 4 Used Oil
Natural Gas
Natural Gas
Natural Gas

Worst Case Fuel Usage Limitations

Fuel Oil: #4 used oil

$$\frac{96.84 \text{ tons SO}_2/\text{year limited}}{221.99 \text{ tons SO}_2/\text{year potential}} * 4027.08 \frac{\text{Kgals}}{\text{year potential}} = 1756.73 \frac{\text{Kgals}}{\text{year limited}}$$

Other Fuel Usage Limitations

Fuel Oil: #4 distillate fuel oil

$$\frac{96.84 \text{ tons SO}_2/\text{year limited}}{148.87 \text{ tons SO}_2/\text{year potential}} * 3969.96 \frac{\text{Kgals}}{\text{year potential}} = 2582.40 \frac{\text{Kgals}}{\text{year limited}}$$

Fuel Oil: #2 distillate fuel oil

$$\frac{96.84 \text{ tons SO}_2/\text{year limited}}{140.93 \text{ tons SO}_2/\text{year potential}} * 3969.96 \frac{\text{Kgals}}{\text{year potential}} = 2727.89 \frac{\text{Kgals}}{\text{year limited}}$$

Fuel equivalence limit for natural gas based on SO2 emissions from #4 used oil

$$\frac{0.17 \text{ n.g. potential emissions (ton/yr)}}{559.76 \text{ n.g. potential usage (MMCF/yr)}} / \frac{221.99 \text{ \#4 used oil potential emissions (ton/yr)}}{4027.08 \text{ \#4 used oil potential usage (kgal/yr)}} = 0.0054 \frac{\text{Kgal \#4 used oil burned}}{\text{MMCF n.g. burned}}$$

Fuel equivalence limit for #2 distillate fuel oil based on SO2 emissions from #4 used oil

$$\frac{140.93 \text{ \#2 F.O. potential emissions (ton/yr)}}{3969.96 \text{ \#2 F.O. potential usage (kgal/yr)}} / \frac{221.99 \text{ \#4 used oil potential emissions (ton/yr)}}{4027.08 \text{ \#4 used oil potential usage (kgal/yr)}} = 0.6440 \frac{\text{Kgal \#4 used oil burned}}{\text{Kgal \#2 F.O. burned}}$$

Fuel equivalence limit for #4 distillate fuel oil based on SO2 emissions from #4 used oil

$$\frac{148.87 \text{ \#4 F.O. potential emissions (ton/yr)}}{3969.96 \text{ \#4 F.O. potential usage (kgal/yr)}} / \frac{221.99 \text{ \#4 used oil potential emissions (ton/yr)}}{4027.08 \text{ \#4 used oil potential usage (kgal/yr)}} = 0.6803 \frac{\text{Kgal \#4 used oil burned}}{\text{Kgal \#4 F.O. burned}}$$

**** summary of source emissions after controls ******Criteria Pollutant:**

	Non-Fugitive	Fugitive	Total
PM:	33.74 ton/yr	12.13 ton/yr	45.87 ton/yr
PM-10:	4.78 ton/yr	4.41 ton/yr	9.19 ton/yr
SO ₂ :	99.00 ton/yr	0.00 ton/yr	99.00 ton/yr
NO _x :	28.61 ton/yr	0.00 ton/yr	28.61 ton/yr
VOC:	13.79 ton/yr	0.00 ton/yr	13.79 ton/yr
CO:	23.67 ton/yr	0.00 ton/yr	23.67 ton/yr

**** miscellaneous ******326 IAC 7 Compliance Calculations:**

The following calculations determine the maximum sulfur content of distillate fuel oil allowable by 326 IAC 7:

$$\begin{array}{rcl} 0.5 \text{ lb/MMBtu} \times 141,000 \text{ Btu/gal} & = & 70.5 \text{ lb/1000gal} \\ 70.5 \text{ lb/1000gal} / 142 \text{ lb/1000 gal} & = & 0.5 \% \end{array}$$

Sulfur content must be less than or equal to 0.5% to comply with 326 IAC 7.

The following calculations determine the maximum sulfur content of waste (used) oil allowable by 326 IAC 7:

$$\begin{array}{rcl} 1.6 \text{ lb/MMBtu} \times 139,000 \text{ Btu/gal} & = & 222.4 \text{ lb/1000gal} \\ 222.4 \text{ lb/1000gal} / 147 \text{ lb/1000 gal} & = & 1.5 \% \end{array}$$

Sulfur content must be less than or equal to 1.5% to comply with 326 IAC 7.

Compliance with NSPS (326 IAC 12; 40 CFR 60.90 to 60.93, Subpart I) and 326 IAC 6-1-2

The following calculations determine compliance with 326 IAC 6-1-2 (for counties listed in 326 IAC 6-1-7) and NSPS, which limits stack emissions from asphalt plants to 0.03 gr/dscf (when in counties listed in 326 IAC 6-1-7), and 0.04 gr/dscf (when not located in those counties):

$$\begin{array}{rcl} \frac{33.67 \text{ ton/yr}^*}{525,600 \text{ min/yr}^*} \times \frac{2000 \text{ lb/ton}^*}{36,301 \text{ dscf/min}} \times 7000 \text{ gr/lb} & = & 0.025 \text{ gr/dscf} \quad (\text{will comply}) \\ \text{Allowable particulate emissions under 326 IAC 6-1-2 equate to} & 40.89 \text{ tons per year, or} & 9.33 \text{ lbs/hr.} \\ \text{Allowable particulate emissions under NSPS equate to} & 54.51 \text{ tons per year, or} & 12.45 \text{ lbs/hr.} \end{array}$$

Note:

$$\begin{array}{rcl} \text{SCFM} & = & 50,000 \text{ acfm} \times (460 + 70) / (460 + 270) \\ & = & 36,301 \text{ scfm} \end{array}$$

Assumes exhaust gas temperature of 270F and exhaust gas flow of 50,000 acfm.

326 IAC 6-3-2 Compliance Calculations:

The following calculations determine compliance with 326 IAC 6-3-2 for process weight rates in excess of 30 tons per hour:

$$\text{limit} = 55 * (240^{0.11}) - 40 = 60.50 \text{ lb/hr or } 265.01 \text{ ton/yr}$$

Since this emission limit exceeds the PSD source definition of 250 tons/yr, the 326 IAC 6-1-2 allowable emission limit of 40.89 tons per year, and the Subpart I allowable emission limit of 54.51 tons per year, compliance with the PM limit pursuant to 326 IAC 6-1-2 and 40 CFR 60.90, Subpart I will satisfy the requirements of 326 IAC 6-3-2 and will exempt the source from the requirements of 326 IAC 2-2 (PSD).

PM-10 Emission Limit for Aggregate Dryer:

$$\begin{array}{rcl} (99.0 \text{ tons PM-10/yr} - 8.84 \text{ tons PM-10/yr from other sources}) & & \\ = 90.16 \text{ tons PM-10/yr} & = & 20.58 \text{ lbs/hr} \end{array}$$

PM-10 emissions from the aggregate dryer are controlled to 1.08 lbs/hr < 20.58 lbs/hr (Will comply)